

# **SYSTEM AND METHOD FOR NON-CAUSAL CHANNEL EQUALIZATION**

## **ABSTRACT OF THE INVENTION**

5           A system and method are provided for non-causal channel equalization in a communications system. The method comprises: establishing three thresholds; receiving a non-return to zero (NRZ) data stream; comparing the first bit estimate in the data stream to a second bit value received prior to the first bit; comparing the first bit estimate to a

10   third bit value received subsequent to the first bit; NRZ data stream inputs below the first threshold and above the third threshold are a "0" if both the second and third bits are "1" values, and as a "1" if either of the second and third values is a "1"; NRZ data stream inputs above the second threshold and below the third threshold are a "1" if both the second and

15   third bits are a "0" value, and as a "0" if either of the second and third values is a "0".